Mine Action and the Environment

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As global warming is a hot environmental topic these days, and scientists agree that unless we act soon to significantly reduce global pollution, average temperatures will continue to rise, causing heat waves, rising sea levels, droughts and wildfires. It is also important to look at mine-action procedures and activities to ensure our industry is in compliance with the world’s requirements on environment protection. There is perhaps a need, more than ever before, to remind national mine-action authorities and demining organisations of their responsibility to ensure that demining operations not only be carried out in a safe, effective and efficient manner, but also in a manner that minimises any impact on the environment.

I n its continued efforts to provide the mine-action community with consistent and globally relevant International Mine Action Standards, the United Nations Mine Action Service and the Geneva International Centre for Humanitarian Demining have been involved in the development of a standard on the protection of the environment. This standard will provide guidelines as to the minimum measures to guarantee environments affected by demining operations, particularly stockpile destruction, are safe and fit for their intended use once demining operations are completed.

When we talk about “environment,” we mean the surrounding in which an organisation operates. The new standard will emphasise that demining operations should be carried out in way that minimizes damage to property and infrastructure and is safe for local communities and demining staff. Planning for demining operations must take into account the effects of operations and any supporting activities, on the environment, andpose possible damage to property, infrastructure or personnel. Demining organisations should ensure that the land over which demining operations have taken place—including land used for administrative or support purposes, such as temporary accommodation facilities and support areas—is suitable for its intended use once demining operations cease. Particular attention should be given to property, infrastructure or land required for sustenance or economic purposes to ensure that these activities can continue after demining operations have been completed.

Activities That May Damage the Environment

Demining operations have the potential to damage the environment in which they are conducted. This damage not only includes the short-term effects caused by demolition activities, but also long-term effects that may be caused by contamination of soil and water systems, removal of vegetation, disruption to watercourses or changes to soil structure. Demining operations may also damage the natural habitats of insects and wildlife and affect areas of historical or cultural significance. The following are some extracts from the forthcoming standard that discusses potential demining activities that may damage the environment:

“Demining operations have the potential to damage the environment in which they are conducted.”

Use of machines in support of mine clearance.

Disposal of toxic and hazardous waste.

Disposal of debris, rubble and wire.

Debris, rubble, wire and any other remains of obstacle removed from a demining worksite must be disposed of in accordance with local waste-management regulations and requirements of the national authority. When applicable local community members should be consulted and, in the case of stockpile destruction, they should be informed about each disposal.

Disposal of toxic and hazardous waste. Toxic and hazardous waste are not normally found in landmines, however, asbestos chemicals and liquid propellants can be found in missiles and fuze systems. Also, chemical weapons—including chlorine and mustard-gas munitions and depleted-uranium projectiles—may be encountered. Other examples of

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Initial Iraq Landmine Impact Survey Completed

The first phase of a three-year survey on 13 of Iraq’s 18 provinces has been completed. The Landmine Impact Survey is an important tool for the government of Iraq and international donors, allowing a temporary blueprint to be made for clearance of landmines, unexploded ordnance, abandoned munitions and other explosive remnants of war. Such hazards threaten one in every five Iraqis, according to the U.S. Department of State, whose Office of Weapons Removal and Abatement funded the USD4 million survey.

The survey was conducted in the provinces of Babylon, Baqubah, Duhok, Kirkuk, Karbala, Missan, Muthanna, Najaf, Qadissiya, Sulaymaniyah, Tameem and Wasit. Work will proceed in the remaining five provinces—Al-Anbar, Baghdad, Diya, Nineawa and Salah ad-Din—as security conditions permit.

The survey will allow the government and international donors to improve the allocation of demining and clearance resources. It was completed, the State Department reports, by Iraqi citizens, including teachers and doctors, and was done via foot, car, tractor and even donkey. The survey also helped shed light on communities not known to exist, opening those communities to outside resources.

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tomic and hazardous waste include flammable substances, oily wastes, lubricants, fats, greases, medical waste, old medicines and other chemicals. Any toxic or hazardous waste products of demining operations must be disposed of in accordance with the requirements of the national authority.

Obstruction of watercourses. Demining organisations must not obstruct or divert the natural flow of watercourses, unless it is necessary to divert or dam the watercourse to allow demining to be conducted. If it is necessary to divert or dam a watercourse, the landowner or watercourse authorities should be consulted and their agreement obtained before work commences.

Degradation of air quality. When demining organisations are conducting operations, they are to remain aware of the location of local communities, the prevailing wind conditions in the area and the ability of prevailing winds to carry smoke, dust and toxic fumes to local communities. Demining organisations must ensure that the impact on local communities of any degradation of air quality is minimised. When degradation of air quality is likely to affect local communities, demining organisations must liaise with local communities and authorities to explain the scope, scale and duration of any likely air degradation.

Waste water. Waste water from washing, bathing or kitchen areas must be drained into soak pits large enough to take the amount of water generated.

Domestic water supply. The provision of domestic water is to be carried out in a manner that does not affect the supply to other local communities, unless the local communities have been consulted on this matter and have agreed to any arrangements made.

Fuel, oil and lubricant areas. Demining organisations must ensure that procedures are in place to contain and quickly clean up any fuel spills. Contaminated materials containing spilled fuel should be collected and disposed of at controlled landfill facilities. Alternatively, the material should be disposed of at a specific site where leakage into the soil is prevented. Where it is necessary to establish temporary fuel facilities, precautions must be taken to ensure that fuel is stored safely and does not contaminate the soil or groundwater.

Maintenance areas. When servicing, repairing or washing vehicles, machines and equipment at workites, specific areas must be designated for this activity. The following environmental precautions should be taken: wastewater must not be released so that it will enter watercourses; drained oil must be contained using a drip pan or other suitable receptacle and disposed of in an environmentally acceptable manner, and used products of maintenance or other rubbish must be disposed of properly.

Compiling of demining operations. On completion of demining operations, all hazardous, toxic or flammable material (except that marking hazardous areas) and other such items must be removed. Toilets, soak pits and rubbish pits must be filled in, covered with soil and have their surfaces stabilised to prevent erosion and to allow natural regeneration of vegetation. As far as practicable, all disturbed areas should be restored to their original condition.

Transportation of hazardous materials. During the transportation of any hazardous, toxic or flammable materials with the potential to damage the environment, precautions must be taken to ensure that risk is minimised. These should include: all materials to be transported in containers that will minimise or prevent spills or leakage; materials to be securely loaded in the transport; fire precautions to be taken relevant to the materials being transported; and vehicles carrying hazardous material to be driven in a safe and careful manner.

Storage. Storage and Handling of Explosives: provides specifica-
tions and guidelines for the safe storage, transportation and handling of explosives used by demining organisations. In addition, and where applicable, the storage of hazardous material should be in accordance with international standards.

Toilet. Human waste should not be discharged into watercourses or onto the soil surface. Where possible, temporary toilets should be used on all demining worksites and temporary accommodation facilities. Temporary toilets should be equipped with holding tanks that can be pumped to sewerage services or connected to septic tanks for safe drainage.

Domestic rubbish. Rubbish removed from the site must be disposed of at approved rubbish-dumping sites. Any rubbish spilled during the removal process is to be cleaned up. Rubbish must only be burned with the approval of the local communities/authorities and then in locations agreed to by them. Rubbish pits must be located away from watercourses and wells and must not contaminate groundwaters.

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